## §431.63

Holding temperature application means a use of commercial refrigeration equipment other than a pull-down temperature application, except a blast chiller or freezer.

Horizontal Closed means equipment with hinged or sliding doors and a door angle greater than or equal to 45°.

Horizontal Open means equipment without doors and an air-curtain angle greater than or equal to 80° from the vertical.

Ice-cream freezer means a commercial freezer that is designed to operate at or below  $-5\,^{\circ}\mathrm{F}$  ( $-21\,^{\circ}\mathrm{C}$ ) and that the manufacturer designs, markets, or intends for the storing, displaying, or dispensing of ice cream.

Integrated average temperature means the average temperature of all test package measurements taken during the test.

Lighting occupancy sensor means a device which uses passive infrared, ultrasonic, or other motion-sensing technology to automatically turn off or dim lights within the equipment when no motion is detected in the sensor's coverage area for a certain preset period of time.

Lowest application product temperature means the integrated average temperature closest to the specified rating temperature for a given piece of equipment achievable and repeatable, such that the integrated average temperature of a given unit is within  $\pm 2~\mathrm{^\circ F}$  of the average of all integrated average temperature values for that basic model.

Night curtain means a device which is temporarily deployed to decrease air exchange and heat transfer between the refrigerated case and the surrounding environment.

Pull-down temperature application means a commercial refrigerator with doors that, when fully loaded with 12 ounce beverage cans at 90 degrees F, can cool those beverages to an average stable temperature of 38 degrees F in 12 hours or less.

Remote condensing unit means a factory-made assembly of refrigerating components designed to compress and liquefy a specific refrigerant that is remotely located from the refrigerated equipment and consists of 1 or more refrigerant compressors, refrigerant con-

densers, condenser fans and motors, and factory supplied accessories.

Scheduled lighting control means a device which automatically shuts off or dims the lighting in a display case at scheduled times throughout the day.

Self-contained condensing unit means a factory-made assembly of refrigerating components designed to compress and liquefy a specific refrigerant that is an integral part of the refrigerated equipment and consists of 1 or more refrigerant compressors, refrigerant condensers, condenser fans and motors, and factory supplied accessories.

Semivertical Open means equipment without doors and an air-curtain angle greater than or equal to 10° and less than 80° from the vertical.

Test package means a packaged material that is used as a standard product temperature-measuring device.

Vertical Closed means equipment with hinged or sliding doors and a door angle less than 45°.

Vertical Open means equipment without doors and an air-curtain angle greater than or equal to  $0^{\circ}$  and less than  $10^{\circ}$  from the vertical.

Wedge case means a commercial refrigerator, freezer, or refrigerator-freezer that forms the transition between two regularly shaped display cases.

[70 FR 60414, Oct. 18, 2005, as amended at 71 FR 71369, Dec. 8, 2006; 74 FR 1139, Jan. 9, 2009; 76 FR 12503, Mar. 7, 2011; 77 FR 10318, Feb. 21, 2012]

## TEST PROCEDURES

## § 431.63 Materials incorporated by reference.

(a) General. We incorporate by reference the following standards into subpart C of part 431. The material listed has been approved for incorporation by reference by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR 51. Any subsequent amendment to a standard by the standard-setting organization will not affect the DOE regulations unless and until amended by DOE. Material is incorporated as it exists on the date of the approval and a notice of any change in the material will be published in the FEDERAL REGISTER. All

approved material is available for inspection at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030 or go to <a href="http://www.archives.gov/federal register/">http://www.archives.gov/federal register/</a>

code\_of\_federal\_regulations/

ibr\_locations.html. Also, this material is available for inspection at U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, Building Technologies Program, 6th Floor, 950 L'Enfant Plaza, SW., Washington, DC 20024, 202-586-2945, or go to: http://www1.eere.energy.gov/buildings/appliance\_standards/. Standards can be obtained from the sources listed below.

- (b) ANSI. American National Standards Institute, 25 W. 43rd Street, 4th Floor, New York, NY 10036, 212-642-4900, or go to http://www.ansi.org:
- (1) ANSI /AHAM HRF-1-2004, Energy, Performance and Capacity of Household Refrigerators, Refrigerator-Freezers and Freezers, approved July 7, 2004, IBR approved for §431.64.
- (2) AHAM HRF-1-2008 (''HRF-1-2008''), Association of Home Appliance Manufacturers, Energy and Internal Volume of Refrigerating Appliances (2008) including Errata to Energy and Internal Volume of Refrigerating Appliances, Correction Sheet issued November 17, 2009, IBR approved for § 431.64.
- (c) AHRI. Air-Conditioning, Heating, and Refrigeration Institute, 2111 Wilson Blvd., Suite 500, Arlington, VA 22201, (703) 524–8800, ahri@ahrinet.org, or http://www.ahrinet.org/Content/StandardsProgram 20.aspx.
- (1) ARI Standard 1200–2006, Performance Rating of Commercial Refrigerated Display Merchandisers and Storage Cabinets, 2006, IBR approved for §§ 431.64 and 431.66.
- (2) AHRI Standard 1200 (I–P)–2010 ("AHRI Standard 1200 (I–P)–2010"), 2010 Standard for Performance Rating of Commercial Refrigerated Display Merchandisers and Storage Cabinets, 2010, IBR approved for § 431.64.

 $[74 \; \mathrm{FR} \; 1139, \; \mathrm{Jan.} \; 9, \; 2009, \; \mathrm{as} \; \mathrm{amended} \; \mathrm{at} \; 77 \; \mathrm{FR} \; 10318, \; \mathrm{Feb.} \; 21, \; 2012]$ 

## § 431.64 Uniform test method for the measurement of energy consumption of commercial refrigerators, freezers, and refrigerator-freezers.

- (a) *Scope.* This section provides the test procedures for measuring, pursuant to EPCA, the daily energy consumption in kilowatt hours per day (kWh/day) for a given product category and volume or total display area of commercial refrigerators, freezers, and refrigerator-freezers.
- (b) Testing and calculations. Manufacturers shall use this paragraph (b) for the purposes of certifying compliance with the applicable energy conservation standards and for all representations of energy efficiency/energy use. For equipment manufactured prior to January 1, 2016, determine the daily energy consumption of each covered commercial refrigerator, freezer, or refrigerator-freezer by conducting the test procedure set forth in the Air-Conditioning and Refrigeration Institute (ARI) Standard 1200-2006, "Performance Rating of Commercial Refrigerated Display Merchandisers and Storage Cabinets," section 3, "Definitions," section 4, "Test Requirements," and section 7, "Symbols and Subscripts" (incorporated by reference, see §431.63). For each commercial refrigerator. freezer, or refrigerator-freezer with a self-contained condensing unit, also use ARI Standard 1200-2006, section 6, "Rating Requirements for Self-contained Commercial Refrigerated Display Merchandisers and Storage Cabinets." For each commercial refrigerator, freezer, or refrigerator-freezer with a remote condensing unit, also use ARI Standard 1200-2006, section 5, "Rating Requirements for Remote Commercial Refrigerated Display Merchandisers and Storage Cabinets." For equipment manufactured on or after January 1, 2016, determine the daily energy consumption of each covered commercial refrigerator, freezer, refrigerator-freezer or ice-cream freezer by conducting the test procedure set forth in the AHRI Standard 1200 (I-P)-2010, section 3, "Definitions," section 4, "Test Requirements," and section 7, "Symbols and Subscripts" (incorporated by reference, see §431.63). For each commercial refrigerator, freezer,